

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

Claims 1-20 (canceled).

21. (Currently Amended) A method for optimizing a process for automatically recognizing a destination address of a postal item, comprising the steps of:

forming a digital image of said postal item including a destination address for said item;

performing address resolution processing from said image and a postal directory, via OCR processing in a data processing unit, for providing an unambiguous delivery point corresponding to said destination address ~~when~~if said resolution is unambiguous and several possible ambiguous delivery points ~~when~~if said resolution is ambiguous; and

upon determining, by~~when~~ said address resolution processing, ~~provides~~ several possible ambiguous delivery points, ~~detecting~~ from a database coupled to said processing unit that said several possible ambiguous delivery points are included in a single delivery round, said single delivery round being defined into said database by several ordered delivery point records each containing mail volume data; and

in response to said detection, computing, via said processing unit and from said mail volume data, a mail volume value for a delivery range in said delivery round, said delivery range being defined by two extreme delivery points among said possible ambiguous delivery points within said delivery round, and ~~for~~ providing a resulting delivery point which corresponds to said destination address ~~when~~if said mail volume value is less than a predetermined volume threshold, said resulting delivery point being a first one of said two extreme possible ambiguous delivery points.

22. (Withdrawn) A method for automatically recognizing a destination address of a postal item, comprising the steps of:

a) forming a digital image of said postal item including a destination address for said item;

b) performing address resolution processing from said image and a postal directory, via OCR processing in a data processing unit, for providing an unambiguous delivery point corresponding to said destination address when said resolution is unambiguous and several possible ambiguous delivery points when said resolution is ambiguous; and

when said address resolution processing provides several possible ambiguous delivery points:

c) detecting, from a database coupled to said processing unit, that a first and a second possible ambiguous delivery point are not associated with same delivery office into said database for computing a first extra cost value representing a first error cost of processing said current mail item into a wrong delivery office, several delivery offices, several delivery rounds and several delivery points being defined by records into said database, each delivery office record being associated into said database with several delivery round records and each delivery round record being associated into said database with several delivery point records;

d) detecting, via said processing unit, that said first and said second possible ambiguous delivery points are not associated with same delivery round into said database for computing a second extra cost value representing a second error cost of processing said current mail item into a wrong delivery round,

e) accumulating, via said processing unit, said first and said second extra cost value with a predefined third extra cost value for computing a cumulated

extra cost value, said third extra cost value representing a third error cost of delivering said current mail item to a wrong delivery point;

f) repeating steps c), d), and e) with said first and each of the others of said possible ambiguous delivery points for computing resulting cumulated extra cost value associated to said first possible ambiguous delivery point;

g) repeating steps c), d), e), and f) for each subsequent possible ambiguous delivery point for computing resulting cumulated extra cost values associated respectively to said possible ambiguous delivery points; and

h) detecting, via said processing unit, a smallest cost value among said resulting cumulated extra cost values for providing a resulting delivery point which corresponds to said destination address when said smallest cost value is less than a predetermined cost threshold.

23. (Currently Amended) A postal address recognition system for automatically recognizing a destination address of a postal item, comprising:

a camera for forming a digital image of said postal item including a destination address for said item;

a database wherein delivery rounds are defined each by several ordered delivery point records, each delivery point record containing mail volume data; and

data processing means designed for

a) performing address resolution processing from said image and a postal directory, via OCR, for providing an unambiguous delivery point corresponding to said destination address ~~when~~if said resolution is unambiguous and several possible ambiguous delivery points ~~when~~if said resolution is ambiguous; and

b) upon determining, by the~~when said~~ address resolution processing, ~~provides several possible ambiguous delivery points.~~; ~~b)~~ detecting from said

database that said several possible ambiguous delivery points are included in a single delivery round; ~~and~~

c) in response to said detection, computing from said mail volume data a mail volume value for a delivery range in said delivery round, said delivery range being defined by two extreme delivery points among said possible ambiguous delivery points within said delivery round, and ~~for~~ providing a resulting delivery point which corresponds to said destination address ~~when~~if said mail volume value is less than a predetermined volume threshold, said resulting delivery point being a first one of said two extreme possible ambiguous delivery points.

24. (Withdrawn) A postal address recognition system for automatically recognizing destination address of a postal item, comprising:

a camera for forming a digital image of said postal item including a destination address for said item;

a database wherein several delivery offices, several delivery rounds and several delivery points are defined by records, each delivery round record being associated into said database with several delivery point records, each delivery office record being associated into said database with several delivery point records; and

data processing means for:

a) performing address resolution processing from said image and a postal directory, via OCR, for providing an unambiguous delivery point corresponding to said destination address when said resolution is unambiguous and several possible ambiguous delivery points when said resolution is ambiguous; and

:when said address resolution processing provides several possible ambiguous delivery points:

b) detecting that a first and a second possible ambiguous delivery point are not associated with same delivery office into said database for computing a first extra cost value representing a first error cost of processing said current mail item into a wrong delivery office,

c) detecting that said first and said second possible ambiguous delivery point are not associated with same delivery round into said database for computing a second extra cost value representing a second error cost of processing said current mail item into a wrong delivery round,

d) accumulating said first and said second extra cost value with a predefined third extra cost value for computing a cumulated extra cost value, said third extra cost value representing a third error cost of delivering said current mail item to a wrong delivery point;

e) repeating steps b), c) and d) with said first and each of the others of said possible ambiguous delivery points for computing a resulting cumulated extra cost value associated to said first possible ambiguous delivery point;

f) repeating steps b), c), d) and e) for each subsequent possible ambiguous delivery points for computing resulting cumulated extra cost values associated respectively to said possible ambiguous delivery points;

g) detecting a smallest cost value among said resulting cumulated extra cost values for providing a resulting delivery point which corresponds to said destination address when said smallest cost value is less than a predetermined cost threshold.

25. (Currently Amended) A postal sorting machine comprising:

~~a postal address recognition system according to claim 23; and~~

a camera for forming a digital image of said postal item including a destination address for said item;

a database wherein delivery rounds are defined each by several ordered delivery point records, each delivery point record containing mail volume data; and

data processing means designed for

a) performing address resolution processing from said image and a postal directory, via OCR, for providing an unambiguous delivery point corresponding to said destination address if said resolution is unambiguous and several possible ambiguous delivery points if said resolution is ambiguous;

b) upon determining, by the address resolution processing, several possible ambiguous delivery points, detecting from said database that said several possible ambiguous delivery points are included in a single delivery round;

c) in response to said detection, computing from said mail volume data a mail volume value for a delivery range in said delivery round, said delivery range being defined by two extreme delivery points among said possible ambiguous delivery points within said delivery round, and providing a resulting delivery point which corresponds to said destination address if said mail volume value is less than a predetermined volume threshold, said resulting delivery point being a first one of said two extreme possible ambiguous delivery points; and

a sorting mechanism for sorting said postal item in accordance with said resulting delivery point.

26. (Withdrawn) A postal sorting machine comprising:
a postal address recognition system according to claim 24; and
a sorting mechanism for sorting said postal item in accordance with said resulting
delivery point.